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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/829,207

04/22/2004

Hong-Gee Fang

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01/11/2006

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EXAMINER

AUDUONG, GENE NGHIA

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

EK

**Office Action Summary**

Application No.

10/829,207

Applicant(s)

FANG ET AL.

Examiner

Gene N. Auduong

Art Unit

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --****Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>08-17-2004</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on August 17, 2004 is being considered by the examiner.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are:

Claims 1-2, 4-5 and 21-24 contain the limitation “at the same period” and claim 3 contains the limitation “at different periods”. A refresh requests at a same period or different periods according to what signals or method steps?

Claims 6-9 are rejected under 35 U.S.C. 112, second paragraph as being depending on the rejected base claim, which is rejected under 35 U.S.C. 112, second paragraph.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Dosaka et al.

(US Pat. No. 6,356,484).

Regarding claim 1 (as best understood), Dosaka et al. disclose a memory system comprising: a memory device further comprising an array of cells formed in rows and columns; a control signal controlling operation modes of the memory device (control signal for controlling read, write, refresh and other operation in the memory device); and a generator (refresh generating circuits) receiving the control signal providing a refresh request at a same period if the control signal is deactivated, providing no refresh request in response to a first state of the control signal if the control signal is activated, and providing a refresh request in response to a second state of the control signal if the control signal is activated (figures 5 and 6, refresh generating circuit generating refresh request signals based on the control signal, to which its for controlling auto refresh mode or self refresh mode; col. 7, lines 66+).

Regarding claims 2-6 (as best understood), Dosaka et al. disclose the system of claim 1, the generator providing a refresh request at a same/different period in response to the second state of the control signal if the control signal is activated, control signal further comprising a pulse width smaller than half the same period; further comprising a clock generator generating a clock signal at a same period if the control signal is deactivated; the control signal is connected to a fixed voltage level (Vcc level) when deactivated (figures 5-6).

Regarding claim 7 (as best understood), Dosaka et al. disclose the system of claim 1 further comprising: a column decoder including a plurality of pass gates (figure 8, column

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decoder having a plurality of column select gates CSG); and an amplifier unit disposed between the memory device and the column decoder further comprising a plurality of sense amplifiers corresponding to the pass gates (figures 8-9; col. 28, lines 6+).

Regarding claims 8 and 9, Dosaka et al. disclose the system of claim 1, the memory device being operated in continuous access cycles in response to the first state of the control signal; and being operated in continuous refresh cycles in response to the second state of the control signal (figure 5-6).

Regarding claims 10-24, the apparatus as previously discussed in claims 1-9 would be performed the method as claimed. Therefore, they are analyzed as previously discussed with respect to apparatus claims 1-9.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N. Auduong whose telephone number is (571) 272-1773. The examiner can normally be reached on 9-5-4, alternate second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on (571) 272-1852. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA  
December 28, 2005



Gene N Auduong  
Primary Examiner  
Art Unit 2827